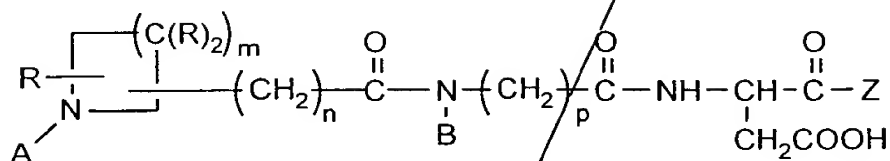
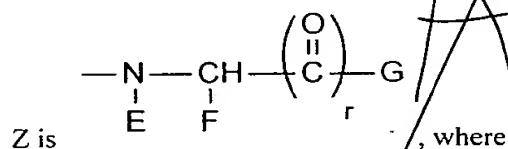


1. A compound of the formula



A is -H, amidino, or substituted amidino;

B is alkyl, cycloalkyl, cycloalkylalkyl, alkylcycloalkyl, alkylcycloalkylalkyl, aryl, aralkyl, alkylaryl, or alkylaralkyl;



E is -H or, in combination with F, forms a 4-, 5-, 6-, or 7-membered azacycloalkane ring,

F is the α -carbon side chain of a naturally occurring α -amino acid, -H, alkyl, cycloalkyl, cycloalkylalkyl, alkylcycloalkyl, alkylcycloalkylalkyl, aryl, substituted aryl, aralkyl, substituted aralkyl, heterocyclyl, substituted heterocyclyl, heterocyclylalkyl, substituted heterocyclylalkyl, or, in combination with E, forms a 4-, 5-, 6-, or 7-membered azacycloalkane ring,

G is alkyl, cycloalkyl, cycloalkylalkyl, alkylcycloalkyl, alkylcycloalkylalkyl, aryl, substituted aryl, aralkyl, substituted aralkyl, heterocyclyl, substituted heterocyclyl, heterocyclylalkyl, substituted heterocyclylalkyl, OR¹, or NR¹R², where R¹ and R² are independently -H, alkyl, cycloalkyl, cycloalkylalkyl, alkylcycloalkyl, alkylcycloalkylalkyl, aryl, aralkyl, alkylaryl, or alkylaralkyl, and

r is 0 or 1;

R is ~~H~~-, alkyl, aryl, or aralkyl;

~~m~~ is 1 to 5;

n is 0 to 6; and

p is 1 to 4;

5 or a pharmaceutically acceptable salt thereof.

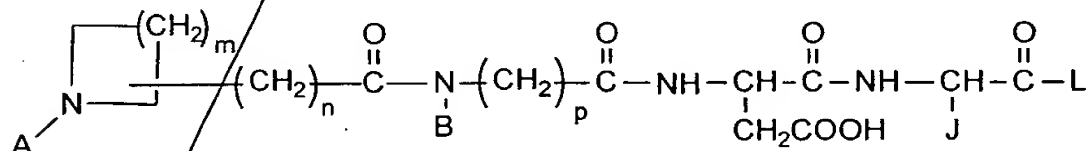
2. A compound of claim 1 wherein F is -H, alkyl, hydroxymethyl, 1-hydroxyethyl, mercaptomethyl, 2-methylthioethyl, carboxymethyl, 2-carboxyethyl, 4-aminobutyl, 3-guanidinopropyl, cycloalkyl, cycloalkylalkyl, alkylcycloalkyl, alkylcycloalkylalkyl, aryl, substituted aryl, aralkyl, substituted aralkyl, heterocyclyl, substituted heterocyclyl, heterocyclylalkyl, substituted heterocyclylalkyl, or, in combination with E, forms a 4-, 5-, 6-, or 7-membered azacycloalkane ring, provided that heterocyclylalkyl is other than indol-3-ylmethyl.

3. A compound of claim 2 wherein F is -H, alkyl, hydroxymethyl, 1-hydroxyethyl, mercaptomethyl, 2-methylthioethyl, carboxymethyl, 2-carboxyethyl, 4-aminobutyl, 3-guanidinopropyl, cycloalkyl, cycloalkylalkyl, alkylcycloalkyl, alkylcycloalkylalkyl, aryl, substituted aryl, aralkyl, substituted aralkyl, or, in combination with E, forms a 4-, 5-, 6-, or 7-membered azacycloalkane ring.

4. A compound of claim 3 wherein F is -H, alkyl, hydroxymethyl, 1-hydroxyethyl, mercaptomethyl, 2-methylthioethyl, carboxymethyl, 2-carboxyethyl, 4-aminobutyl, 3-guanidinopropyl, cycloalkyl, cycloalkylalkyl, alkylcycloalkyl, alkylcycloalkylalkyl, or, in combination with E, forms a 4-, 5-, 6-, or 7-membered azacycloalkane ring.

5. A compound of claim 4 wherein B is alkyl, cycloalkyl, cycloalkylalkyl, alkylcycloalkyl, or alkylcycloalkylalkyl.

6. A compound of the formula



wherein:

35 A is -H or amidino,

B is alkyl, cycloalkyl, cycloalkylalkyl, alkylcycloalkyl, alkylcycloalkylalkyl, aryl, aralkyl, alkylaryl, or alkylaralkyl,

J is -H, alkyl, cycloalkyl, cycloalkylalkyl, alkylcycloalkyl, alkylcycloalkylalkyl, aryl, substituted aryl, aralkyl, substituted aralkyl,

L is OR^1 , or NR^1R^2 , where R^1 and R^2 are independently -H, alkyl, cycloalkyl, cycloalkylalkyl, alkylcycloalkyl, alkylcycloalkylalkyl, aryl, aralkyl, alkylaryl, or alkylaralkyl,

m is 1 to 5,

n is 2 to 6, and

p is 1 or 2;

or a pharmaceutically acceptable salt thereof.

7. A compound of claim 6 wherein

A is -H,

B is alkyl, cycloalkyl, cycloalkylalkyl, alkylcycloalkyl, alkylcycloalkylalkyl,

J is -H, alkyl, cycloalkyl, cycloalkylalkyl, alkylcycloalkyl, or alkylcycloalkylalkyl,

m is 3, and

n is 3 or 4.

8. A compound of claim 7 wherein

A is -H,

B is alkyl,

J is alkyl, cycloalkyl, or cycloalkylalkyl,

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m is 3,

p is 1.

N-[N-[N-(4-(piperidin-4-yl)butanoyl)-N-ethylglycyl]aspartyl] valine,

N-[N-[N-(4-(piperidin-4-yl)butanoyl)-N-ethylglycyl]aspartyl]-D-valine,

N-[N-[N-(3-(piperidin-4-yl)propanoyl)-N-ethylglycyl]aspartyl] valine,

N-[N-[N-(5-(piperidin-4-yl)pentanoyl)-N-ethylglycyl]aspartyl] valine,

N-[N-[N-(4-(piperidin-4-yl)butanoyl)-N-ethylglycyl]aspartyl]-L-α-cyclohexyl
glycine,

N-[N-[N-(4-(piperidin-4-yl)butanoyl)-N-ethylglycyl]aspartyl]-b-cyclohexylalanine,

N-[N-[N-(4-(~~pipe~~ridin-4-yl)butanoyl)-N-ethylglycyl]aspartyl] norleucine,

N-[N-[N-(4-(piperidin-4-yl)butanoyl)-N-ethylglycyl]aspartyl]-L-a-(2,2-dimethylprop3-yl)glycine,

N-[N-[N-(4-(piperidin-4-yl)butanoyl)-N-ethylglycyl]aspartyl]-L-b-cis-decahydronaphth-2-ylalanine,

~~N-[N-[N-(4-(piperidin-4-yl)butanoyl)-N-ethylglycyl]aspartyl]-a-aminocyclohexanecarboxylic acid,~~

N-[N-[N-(4-(piperidin-4-yl)butanoyl)-N-ethylglycyl]aspartyl]-b-cyclohexyl-D-alanine,

5

N-[N-[N-(4-(piperidin-4-yl)butanoyl)-N-ethylglycyl]aspartyl]-6-adamant-1-ylalanine,

N-[N-[N-(4-(piperidin-4-yl)butanoyl)-N-ethylglycyl]aspartyl]-b-cycloheptylalanine,

N-[N-[N-(4-(piperidin-4-yl)butanoyl)-N-ethylglycyl]aspartyl]-b-cyclooctylmethylalanine,

20 N-[N-[N-(4-(piperidin-4-yl)butanoyl)-N-ethylglycyl]aspartyl]-b-
cyclopentylalanine

25 N-[N-[N-(4-(piperidin-4-yl)butanoyl)-N-ethylglycyl]aspartyl]-L-b-
decahydronaphth-1-yl alanine, or

N-[N-[N-(4-(piperidin-4-yl)butanoyl)-N-ethylglycyl]aspartyl]-L-a-(2-cyclohexylethyl)glycine,

30 or a pharmaceutically acceptable salt thereof.

10. / A compound of claim 7 which is

N-[N-[N-(4-(piperidin-4-yl)butanoyl)-N-ethylglycyl]aspartyl] phenylalanine,

N-[N-[N-(4-(piperidin-4-yl)butanoyl)-N-ethylglycyl]aspartyl]-b-(1,2,3,4)-tetrahydronaphth-5-ylalanine,

[illegible]

N-[N-[N-(4-(piperidin-4-yl)butanoyl)-N-ethylglycyl]aspartyl]-L-b-naphth-1-yl
alanine, or

5 N-[N-[N-(4-(piperidin-4-yl)butanoyl)-N-ethylglycyl]aspartyl]-L-b-naphth-2-yl
alanine,

or a pharmaceutically acceptable salt thereof.

10 11. A compound of claim 7 which is

N-[N-[N-(4-(piperidin-4-yl)butanoyl)-N-ethylglycyl]aspartyl]-L-b-cyclohexyl
alanine amide,

15 N-[N-[N-(4-(piperidin-4-yl)butanoyl)-N-ethylglycyl]aspartyl]-b-
cyclooctylalanine amide,

N-[N-[N-(4-(piperidin-4-yl)butanoyl)-N-ethylglycyl]aspartyl]-b-
cyclohexylmethylalanine amide, or

20 N-[N-[N-(4-(piperidin-4-yl)butanoyl)-N-ethylglycyl]aspartyl]-b-cyclohexylalanine
ethyl amide,

or a pharmaceutically acceptable salt thereof.

25 12. A compound of claim 6 which is

N-[N-[N-(4-(piperidin-4-yl)butanoyl)-N-ethylglycyl]aspartyl]-L-b-cyclohexyl
alanine, ethyl ester,

30 N-[N-[N-(4-(piperidin-4-yl)butanoyl)-N-ethylglycyl]aspartyl]-b-
cyclohexylmethylalanine ethyl ester, or

3-Adamant-1-ylpropyl-N-[N-(4-(piperidin-4-yl)butanoyl)-N-ethylglycyl]aspartate,

35 or a pharmaceutically acceptable salt thereof.

13. A compound of claim 1 which is

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2-cyclohexyl-N-[N-[N-(4-(piperidin-4-yl)butanoyl)-N-ethylglycyl]aspartyl]-
ethylamine, or

5 N-[N-[N-(4-(piperidin-4-yl)butanoyl)-N-ethylglycyl]aspartyl]-a-cyclohexylmethylethanolamine,

or a pharmaceutically acceptable salt thereof.

14. A pharmaceutical composition comprising an antithrombotic effective
10 amount of a compound of claim 1 and a pharmaceutically acceptable carrier.

15. A pharmaceutical composition comprising an antithrombotic effective amount of a compound of claim 6 and a pharmaceutically acceptable carrier.

15 16. A method for the prevention of treatment of thrombosis in a mammal in
need of such therapy comprising the administration of a therapeutically effective amount
of a compound of claim 1.

17. A method for the prevention or treatment of thrombosis in a mammal in
20 need of such therapy comprising the administration of a therapeutically effective amount
of a compound of claim 6.

18. A method for the prevention or treatment of thrombosis in a mammal in
need of such therapy comprising the administration of a therapeutically effective amount
25 of the composition of claim 13.

19. A method for the prevention or treatment of thrombosis in a mammal in need of such therapy comprising the administration of a therapeutically effective amount of the composition of claim 14.

ADD
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